



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,147	12/12/2000	Ganesh Rajan	GIC-531	7254
20028	7590	02/13/2004	EXAMINER	
LAW OFFICE OF BARRY R LIPSITZ 755 MAIN STREET MONROE, CT 06468			VO, TUNG T	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 02/13/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,147

Applicant(s)

RAJAN, GANESH

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Eleftheriadis et al. (US 6,092,107).

Re claims 1, 13, and 14, Eleftheriadis et al. discloses a terminal for receiving and processing a multimedia data bitstream (155 of fig. 2), comprising:

- a terminal manager (100, 110, 290, and 295 of fig. 2; see also 295, 401-405 of fig. 4);
- a composition engine (225 of fig. 2, see also 305 of fig. 3 and 415 of fig. 4);
- a plurality of content decoders (270, 271, 272 of fig. 2, see also fig. 3); and

Art Unit: 2613

a presentation engine (282 and 284 of fig. 2);

wherein said content decoders (270, 271, 272 of fig. 2) recover and decode multimedia objects from respective elementary streams (240, 245, 250, 255, 256, 267 of fig. 2) of the bitstream; said multimedia objects comprising at least one of video objects and audio objects for presentation in a multimedia scene (col. 6, line 46 through col. 8, line 9; e.g. MPEG-4 contains video and audio objects, AV objects or information);

said composition engine(225 of fig. 2) recovers scene description information (235 of fig. 2) from the bitstream (230, 165 of fig. 2) that defines specific ones of the recovered multimedia objects (305 of fig. 3, and 415 of fig. 4) that are to be provided in the multimedia scene, and characteristics of the recovered multimedia objects in the multimedia scene (col. 6, lines 3-32);

said terminal manager (100, 110, 290 and 295 of fig. 2) recovers object descriptor information (SCENE GRAPH API 210, 235 of fig. 2) from the bitstream (230, 165 of fig. 2) that associates said recovered multimedia objects (295, 401-405 of fig. 4) with respective ones of said elementary streams (431 (255, 256, 257) of fig. 4), and provides the recovered object descriptor information (406-410 of fig. 4) to said composition engine (col. 8, line 9 through col. 12, line 40);

said composition engine (225 of fig. 2) is responsive to said recovered object descriptor information (406-410 of fig. 10) provided thereto and said recovered scene description information for creating a list of said specific ones of the recovered multimedia objects that are to be displayed in said multimedia scene (API, Application Programming Interfaces, 295 of fig. 4; col. 8-14); and

Art Unit: 2613

said presentation engine (282 of fig. 2) obtains said list from said composition engine (268 of fig. 2), and, in response thereto, retrieves the corresponding decoded multimedia objects from said content decoders (279, 280, 281 of fig. 2) to provide data (283 of fig. 2) corresponding to the multimedia scene to an output device (285 of fig. 2; see also col. 6, lines 12-44).

Re claims 2 and 15, Eleftheriadis further discloses said composition engine (225 of fig. 2) and said presentation engine (282 of fig. 2) have separate control threads (263, 215, 260, 268, 269 of fig. 2).

Re claims 3 and 16, Eleftheriadis further discloses said separate control threads (268 and 269 of fig. 2) allow the presentation engine (282 of fig. 2) to begin retrieving the corresponding decoded multimedia objects (279, 280, and 281 of fig. 2) while the composition engine (225 of fig. 2) recovers additional scene description information (200 of fig. 2) from the bitstream (235 of fig. 2) and/or processes additional object descriptor information provided thereto (290, 295, 100 and 110 of fig. 2).

Re claims 4 and 17-18, Eleftheriadis further discloses said content decoders, presentation engine and composition engine have separate control threads (260, 269, 268 of fig. 2).

Art Unit: 2613

Re claim 5, Eleftheriadis further discloses said characteristics of the recovered multimedia objects in the multimedia scene include positions of said specific ones of the recovered multimedia objects in said multimedia scene (282 of fig. 2, e.g. the element (282) positions the decoded media relative to each other based on BIFS Scene Graph, and possibly user input (130 and 140 of fig. 2), and composes the scene, and this information is conveyed via line (283 of fig. 2) to the Renderer (284 of fig. 2)).

Re claim 6, Eleftheriadis further discloses said recovered scene description information is provided according to a Binary Format for Scenes (BIFS) language (225, 210 of fig. 2, e.g. The BIFS Decoder and Scene Graph).

Re claim 7, Eleftheriadis further discloses said multimedia data bitstream is provided according to an MPEG-4 standard (col. 2).

Re claim 8, Eleftheriadis further discloses said composition engine (225 of fig. 2) maintains scene graph information of a composition of said multimedia scene in response to said recovered object descriptor information provided thereto and said recovered scene description information for use in creating said list (col. 12, lines 10-40).

Re claim 9, Eleftheriadis further discloses said composition engine (225 of fig. 2) updates the scene graph information, and said list, as required, for successive multimedia

Art Unit: 2613

scenes in response to subsequent recovered scene description information from the bitstream (col. 13, lines 5-15).

Re claim 10, Eleftheriadis further discloses said terminal manager (100, 110, 290 and 295 of fig. 2) is responsive to user input events at a user interface (130 and 140 of fig. 2) for providing corresponding data to said composition engine for modifying said scene graph, and said list, as required (290 of fig. 5). .

Re claim 11, Eleftheriadis further discloses said composition engine (225 of fig. 2) provides said list to said presentation engine according to a specified presentation rate (wherein different decoders give different rate, 320 of fig. 3 and 440 of fig. 4).

Re claim 12, Eleftheriadis further discloses wherein said multimedia objects comprise video and audio objects for presentation in the multimedia scene (AV object, wherein the MPEG 4, col. 2, contains the AV objects), video and audio buffers (276, 277, and 278 of fig. 2) for buffering the video and audio objects, respectively, prior to presentation (284 of fig. 2); wherein said presentation engine reads objects from said list and provides them to the appropriate one of said video and audio buffers (284 of fig. 2, col. 6, lines 42-44).

Re claims 19-21, Eleftheriadis further discloses the terminal (225 of fig. 2) comprising adaptation layer (165 of fig. 2) for receiving the bitstream (235, 240, 245, 250 of fig. 2); wherein the content decoders (270, 271, 272 of fig. 2) receive the respective

Art Unit: 2613

elementary streams (240, 245, 250, 255, 256, 257 of fig. 2); the composition engine (225 of fig. 2) receives said scene description information (235 of fig. 2); terminal manager (100 and 110 of fig. 2) receives said object descriptor information (SCENE GRAPH API 210, 235 of fig. 2) from the adaptive layer (165 of fig. 2).

Response to Arguments

1. Applicant's arguments filed 01/14/04 have been fully considered but they are not persuasive.

The applicant argued that the compositor (282 of fig. 2) or terminal manager (255 of fig. 2) of Eleftheriadis does not recover scene description and create a list of specific ones of the recovered multimedia objects that are to be displayed in the multimedia scene in response to the recovered object descriptor information and the recovered scene description information as shown in pages 9-11 of the remarks.

The examiner misquoted a composition engine and terminal manager in the Eleftheriadis reference of the previous Office Action, Paper No. 2, and respectfully disagrees with the applicant's arguments. It has been clarified in the discussion above and now submitted that Eleftheriadis does disclose a composition engine (225 of fig. 2, see also 305 of fig. 3 and 415 of fig. 4) recovers scene description information (235 of fig. 2) from the bitstream (230, 165 of fig. 2) that defines specific ones of the recovered multimedia objects (305 of fig. 3, and 415 of fig. 4) that are to be provided in the multimedia scene, and characteristics of the recovered multimedia objects in the multimedia scene (col. 6, lines 3-32), and the composition engine (225 of fig. 2) is

Art Unit: 2613

responsive to said recovered object descriptor information (406-410 of fig. 10) provided thereto and said recovered scene description information for creating a list of said specific ones of the recovered multimedia objects that are to be displayed in said multimedia scene (API, Application Programming Interfaces, 295 of fig. 4; col. 8-14); the composition (225 of fig. 2) incorporate with the terminal manager (100, 110, 290 and 295) to create a list of said specific ones of the recovered multimedia objects that are to be displayed in said multimedia scene (fig. 4 and 5). It is noted that the applicant admitted “the term “list” will be used herein to indicate any type of listing regardless of the specific implementation. For example, the list may be provided as a single list for all objects, or separate lists may be provided for different object types (e.g. video or audio), or more than one list may be provided for each object type. The list of objects is a simplified version of the scene graph information”. The examiner cites (col. 5, lines 21-36, details in col. 6, lines 45 through col. 14, line 2) to support “list” of the claimed invention and considers “ packages are a means to organize the implementation of APIs”, “the library of APIs”, or instructions (307-312 of fig. 3 and 421-430 of fig. 4) as “list”. In view of discussion above, Eleftheriadis anticipates the claimed features.

The applicant further argued that the render (284 of fig. 2) is not obtains a list of recovered multimedia objects from the composition engine, and, in response thereto, retrieves the corresponding decoded multimedia objects from the content decoders as shown in the remarks, page 11.

The examiner misquoted a presentation engine in the Eleftheriadis reference of the previous Office Action, Paper No. 2, and respectfully disagrees with the applicant’s

Art Unit: 2613

argument. It has been clarified in the discussion above and now submitted that Eleftheriadis does disclose a presentation engine (282 of fig. 2) obtains said list from said composition engine (268 of fig. 2), and, in response thereto, retrieves the corresponding decoded multimedia objects from said content decoders (279, 280, 281 of fig. 2) to provide data (283 of fig. 2) corresponding to the multimedia scene to an output device (285 of fig. 2; see also col. 6, lines 12-44).

The arguments on pages 12 and 13 of the remarks are moot. The rejection is withdrawn.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inoue et al. (US 6,535,919 B1) discloses a verification of image data.

Yui (US 6,493,008) discloses multi-screen display system and method.

Yamao et al. (US 6,351,498 B1) discloses a robust digital modulation and demodulation scheme for radio communications involving fading.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TUNG T. VO
PATENT EXAMINER

T.Vo

Tung T. Vo
Examiner
Art Unit 2613